BY ORDER OF THE
SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 21-404
1 MAY 1997

Maintenance

★*DEVELOPING AND MAINTAINING COMMUNICATIONS AND COMPUTER SYSTEMS INSTALLATION RECORDS*

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

This instruction implements Air Force Policy Directive (AFPD) 21-4, *Engineering Data*,and provides direction for developing and maintaining communications and computer systems (C-CS) installation records (CSIR). Refer questions, recommended changes, and conflicts between this and other instructions to Headquarters Air Force Communications Agency (HQ AFCA)/XPPD, 203 West Losey Street, Room 1065, Scott AFB IL 62225-5224, using AF Form 847, **Recommendation for Change of Publication**. Major commands (MAJCOM), field operating agencies (FOA), and direct reporting units (DRU) send one copy of their supplement to HQ AFCA/XPPD. AFPD 21-4 and Air Force Instruction (AFI) 21-401, *Engineering Data Storage, Distribution, and Control*, assign responsibility to HQ 38th Engineering Installation Wing (38 EIW) for operating the Engineering Data Service Center (EDSC) for C-CS (C-CS EDSC). Address questions regarding the C-CS EDSC to the 38th Mission Support Squadron (38 MSS/EGM), 4026 Hilltop Road, Suite 209, Tinker AFB OK 73145-2713. See attachment 1 for a list of references, abbreviations, acronyms, and terms.

SUMMARY OF REVISIONS

This revision "specifically" defines when installation records are required and directs that CSIRs are handled as For Official Use Only (FOUO), unless the information is classified. Adds CSIR manager responsibilities in the contract area. Adds, deletes, and modifies some facility codes and titles. Places deleted facility codes in an inactive status. Updates terminology from command, control, communications and computer (C4) to communications and information (C-I) to reflect the Air Force integration of the communications (SC) and information management (IM) areas. Updates some terminology from C4 systems to C-CS. Adds attachment 5 to help users develop a checklist that manage taskings imposed by this publication. AF Form 2519, **All Purpose Checklist** , can be used as a tool to create the checklist. A ★ preceding the publication title indicates a major revision from the previous edition.

1. Definition and Purpose.

1.1. Definition. CSIRs are drawings and specifications used for planning, programming, and supporting C-CS operations, maintenance, integration, and engineering and installation (EI) efforts.

1.2. Purpose. The purpose of CSIRs is to show what C-CS equipment, interconnecting cabling, and assigned circuitry are installed for a particular facility, building, or location.

2. Scope.

2.1. Systems That Require Installation Records. CSIRs are required for all Air Force-owned fixed C-Cs, regardless of who maintains or operates the systems. CSIRs are also required for other C-CS that are integral parts of the base infrastructure or that connect or interface with the base C-CS infrastructure. This includes, but is not limited to:

2.1.1. Land mobile radio systems and base stations and deployable equipment that complement the base infrastructure when not deployed.

2.1.2. Permanently mounted transportable systems that are not considered part of the base infrastructure.

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2.1.3. Networked systems, including node equipment, fiber optic and copper cable routing and assignments and interfaces to metropolitan area networks (MAN) and wide area networks (WAN). Use separate records to document WANs and MANs as facilities.
2.1.4. Stand-alone desktop systems, networked personal computers, and other systems not permanently mounted in fixed facilities or buildings, when drawings are necessary to support systems maintenance.
2.2. Systems That Do Not Require Installation Records. Air Force-owned systems mounted temporarily in transportable shelters do not require CSIRs if the information specified in paragraph 1.2 is available in the system's technical publications. This includes those systems used for formal training, as prototype systems, or for temporary exercise periods.
2.3. Waivers. Organizations that need waivers to CSIR requirements forward requests through MAJCOM channels (when applicable) to HQ USAF/SCXX, 1250 Air Force Pentagon, Room 5B315, Washington DC 20330-1250. Send an information copy to 38 MSS/EGM.
2.4. Security. Personnel who develop and store CSIRs must always consider the following security guidelines:
2.4.1. Classify CSIR drawings for classified systems accordingly.
2.4.2. Systems or facilities with emission security or physical security requirements or specifications may contain classified information.
2.4.3. Networked or non-networked systems that process classified information may also contain classified records.
2.4.4. In cases where information is not classified, protect it as FOUO.
2.5. Connections. CSIRs must show connections and interfaces that are important to restoring base communications and computer systems to operation.

3. The Importance and Uses of Communications and Computer Systems. Accurate CSIRs support C-CS life-cycle management. These records assist C-CS engineers and planners at all levels to develop plans for growth, satisfy new requirements, and eliminate unnecessary systems. These records are also an essential product for the development of the base C-CS blueprint. The C-CS planners and CSIR manager must make sure records are accurate and minimize duplication.

4. Responsibilities.
4.1. The 38 MSS/EGM (a part of HQ 38 EIW). The 38 MSS provides guidance in maintaining CSIRs and operates the C-CS EDSC. The center:
4.1.1. Advises C-CS customers on the C-CS EDSC location and point of contact.
4.1.2. Maintains a central data repository of CSIR information and prepares and distributes drawing records and master indexes to bases.
4.1.3. "Prepares" and manages Air Force C-CS engineering "drawings" and specifications for CSIRs that detail the current equipment layout and interconnectivity.
4.1.4. Maintains CSIRs to support EI, operations and maintenance (O and M), and systems telecommunications engineering managers (STEM) architecture planning for Air Force C-CS.
4.1.5. Instructs C-CS EDSC customers on submitting and receiving CSIR updates.
4.1.6. Gives C-CS EDSC customers technical specifications for submitting digital drawing updates via electronic media.
4.1.7. Instructs HQ 38 EIW units to notify the C-CS EDSC of discrepancies in CSIR information.
4.1.8. Stores, distributes, and controls C-CS technical documents, such as blueprints, technical orders (TO), EI project packages, technical reports, and material catalogs.
4.1.9. Manages data according to AFPD 61-2, *Management of Scientific and Technical Information.*
4.1.10. Manages a Department of Defense Index of Specifications and Standards (DODISS) documents library according to AFI 21-401, *Engineering Data Storage, Distribution, and Control.*
4.1.11. Disposes of records according to AFI 37-138, *Records Disposition--Procedures and Responsibilities* (will convert to AFI 33-338) and Air Force Manual (AFMAN) 37-139, *Records Disposition Schedule* (will convert to AFMAN 33-339).
4.2. Base CSO (see attachment 1 for the definition of CSO). The base CSO provides technical support and advice on CSIRs and manages the update process. The base CSO:
4.2.1. Appoints a CSIR manager according to AFI 33-104, *Base-Level Planning and Implementation.*
4.2.2. Notifies the C-CS EDSC of the name, office symbol, and telephone number of the CSIR manager.
4.2.3. Keeps CSIRs (except those excluded by support agreements).
4.2.4. Serves as the base repository for CSIRs for all base organizations.
4.2.5. Supports off-base locations that do not have an assigned C-I unit according to support agreements.
4.3. Base CSIR Manager
4.3.1. Serves as the focal point for receiving new drawings and processing data to update drawings.
4.3.2. Makes sure the installation activity (contracted or military) or applicable workcenter provides accurate, updated drawing information.

4.3.3. Provides CSIR management guidance and assistance to host base and tenant organizations.
4.3.4. Sets up and maintains a master CSIR file for on and off base C-CS or facilities according to attachment 2.
4.3.5. Develops CSIRs for all C-CS that are an integral part of the base infrastructure or that connect or interface with the base C-CS infrastructure. These records must show connections and interfaces that impact the restoration of C-CS. See paragraph 2 for more information.
4.3.6. Works with the contractor and contracting office to establish CSIRs or acceptable contractor-maintained records. Makes sure the C-CS EDSC receives contractor-provided CSIRs.
4.3.7. Makes sure all records are reviewed annually. This review should include the users continued need (and continued funding) for the system, and, if so, verification of the record's accuracy. The annual review may also result in new requirements.
4.3.8. Maintains and disposes of records according to AFI 37-138 and AFMAN 37-139.
4.4. Base Civil Engineer. The base civil engineer uses CSIR data to update comprehensive base or site plans. The C-CS EDSC, along with the base CSO, shares its CSIRs with the base or site civil engineers. Likewise, the engineers share other communications drawings and real property records with the C-CS EDSC and base CSO.
4.4.1. Civil engineering design and construction managers include the provisions for the development and delivery of "as-installed" C-CS records (including C-CS pre-wiring information) in construction and alteration projects. They:
4.4.1.1. Include interior dimensions, rack placement, duct placement, manhole orientation, and sump location for manholes.
4.4.1.2. Include number, size, configuration, usage, and type of ducts for duct banks.
4.4.1.3. Send one copy of the records to the base CSO and one copy to the C-CS EDSC at the time of facility turnover.

5. Communications and Computer Systems Contracts. The base CSO and CSIR manager:
5.1. Provide technical support and advice to the base contracting office on communications and computer contracts to make sure CSIRs are developed and maintained.
5.2. Make sure the contract specifies that the contractor must:
5.2.1. Transfer accurate copies of all CSIRs (concurrently with system certification or transfer of maintenance responsibilities) to the Air Force CSIR manager or another contractor.
5.2.2. Provide paper or electronic copies, as needed, making sure that if you get electronic copies, they are compatible with the C-CS EDSC data base. The CSIR manager makes sure the C-CS EDSC receives CSIRs.
5.2.3. Revise existing contractor-prepared drawings that are not in an Air Force format, when the contractor makes C-CS changes.
5.2.4. Provide all future contractor-prepared drawings according to AFI 21-402, *Engineering Drawing System*, unless the C-CS EDSC directs otherwise.
5.3. Make sure C-CS maintenance contracts include a provision for the contractor to provide periodic updates, as changes are made, to the CSIR manager.
5.4. Prepare, update, and transfer contractor-maintained records according to this instruction.

6. Changes to Communications and Computer Systems Installation Records. Changes may result from installation, relocation, or removal of systems by a military service EI team, a contractor, or local unit. Changes are also noted during the annual review of records. The installation activity, or workcenter in the case of the annual review, provides one copy of updated drawings or records (called Interim Installation Records (IIR)) to the CSIR manager and C-CS EDSC. The CSIR manager makes sure the C-CS EDSC receives a copy. See AFI 33-104 for more information about installations, relocations and removals.
6.1. CSIR Managers:
6.1.1. Make sure drawings use standard color codes for changes: yellow for deleted data; red for additions; and blue for instructions to drafters, engineers, and others.
6.1.2. Make sure the appropriate activity provides two copies of the updated drawings. Keep one copy in the master CSIR file and send the other copy to the C-CS EDSC for updating. Include a cover letter with the drawings sent to the C-CS EDSC. Submit changes promptly, preferably as they occur.
6.1.3. Query the C-CS EDSC about the proper use of symbols, drawing levels, and reference files if computer-aided drawing and design (CADD) software is used for changes.
6.1.4. Submit digital drawing updates in electronic media compatible with the C-CS EDSC system. Where possible, make sure CADD drawings are compatible with the base-level network management system.
6.1.5. Get the current drawing record index from the C-CS EDSC and verify its accuracy.
6.1.6. Notify the C-CS EDSC, in writing, of major self-help installations that will affect CSIRs or future engineering efforts. Submit revised as-installed drawings to the C-CS EDSC. Use an AF Form 1146, **Engineering Change Request/**

Authorization, to request changes to current or planned installations. When the change involves drawings, include the CSIR drawings with the form.

NOTE: CSIR managers do not sign the AF Form 1261, **Command, Control, Communications and Computer Systems Acceptance Certificate** (title being changed to "Communications and Computer Systems Acceptance Certificate") or the Department of Defense (DD) Form 250, **Material Inspection and Receiving Report**, for acceptance of installed, removed or relocated installations, until the installation activity has turned over the annotated interim records to the CSIR manager.

7. Management Checklist. To help you better manage the taskings imposed by this publication, you may use the questions at attachment 5 and AF Form 2519, **All Purpose Checklist.**

WILLIAM J. DONAHUE, Lt General, USAF
Director, Communications and Information

GLOSSARY OF REFERENCES, ABBREVIATIONS, ACRONYMS, AND TERMS

References

AFPD 21-4, *Engineering Data*
AFPD 61-2, *Management of Scientific and Technical Information*
AFI 21-401, *Engineering Data Storage, Distribution, and Control*
AFI 21-402, *Engineering Drawing System*
AFI 33-104, *Base-Level Planning and Implementation*
AFI 37-138, *Records Disposition--Procedures and Responsibilities* (will convert to AFI 33-338)
AFMAN 37-139, *Records Disposition Schedule* (will convert to AFMAN 33-339)

Abbreviations and Acronyms

AFCA−Air Force Communications Agency
AFI−Air Force Instruction
AFMAN−Air Force Manual
AFPD−Air Force Policy Directive
AFTO−Air Force Technical Order
AIA−Air Intelligence Agency
ANG−Air National Guard
AWC−Aerospace Warning/Weapons Control
C-CS−Communications and Computer Systems
C-I−Communications and Information
CADD−Computer-Aided Drawing and Design
CCTV−Closed-Circuit Television
CSIR−C-CS Installation Record
CSO−Communications and Information Systems Officer
DoD−Department of Defense
DODISS−Department of Defense Index of Specifications and Standards
EDSC−Engineering Data Service Center
EI−Engineering and Installation
EIW−Engineering Installation Wing
EMSEC−Emission Security
FOUO−For Official Use Only
GELOC−Geographic Location Indicator
HQ−Headquarters
IIR−Interim Installation Record
MAJCOM−Major Command
MAN−Metropolitan Area Network
MSS−Mission Support Squadron
NATO−North Atlantic Treaty Organization
O and M−Operations and Maintenance
STEM−Systems Telecommunications Engineering Manager
WAN−Wide Area Network

Terms

Blueprint —The STEM-B product documenting the C-CS baseline that identifies a target base configuration to support present and future requirements of the base and provides a time-phased plan for the logical transition from the baseline to the target configuration. The formal term for blueprint is “base C-CS blueprint.”
Command, Control, Communications, and Computer (C4) Systems—(DoD) Integrated systems of doctrine, procedures, organizational structures, personnel, equipment, facilities, and communications designed to support a commander’s exercise of command and control across the range of military operations. Also called C4 systems. (Approved by JMTGM# 081-95). Also called communications and computer systems.
Communications and Computer Systems (C-CS) —See definition for C4 systems.

Communications and Information (C-I) Systems Officer (CSO) —The term CSO identifies the supporting C-I systems officer at all levels. At base-level, this is the commander of the communications unit responsible for carrying out base C-I systems responsibilities, the base CSO. Tenant organizations may also have CSOs. At MAJCOM, and other activities responsible for large quantities of C-I assets, it is the person designated by the commander as responsible for overall management of C-I assets budgeted and funded by the MAJCOM or activity. The CSO function, when under the base communications unit, uses the office symbol "SC" that expands to three and four digits to identify specific functional areas.

C-CS Installation Records (CSIR) Manager—Person designated by the base CSO to manage the C-CS installation records. Support agreements impact the scope of records management.

Computer System —A functional unit, consisting of one or more computers and associated software, that uses common storage for all or part of a program and also for all or part of the data necessary for execution of the program; executes user-written or user-designated programs; performs user-designated data manipulation; and executes programs that modify themselves during the execution.

Engineering Data Service Center (EDSC) —A central repository of engineering drawings and other engineering data. EDSCs receive, index, reproduce, store, distribute, and control data as authorized in AFPD 21-4 and AFI 21-401.

Facility Code —An alphanumeric code that denotes the type of facility associated with C-CS or equipment. The "A" code identifies a general facility type, while the "B" code depicts a single C-CS type.

Infrastructure —(1) (DoD, NATO) A term generally applicable to all fixed and permanent installations, fabrications, or facilities for the support and control of military forces. See also bilateral infrastructure; common infrastructure, national infrastructure. (JP 1-02) (2) The common-user portion of the base-level C-CS environment. It includes transmission, switching, processing, system-control and network-management systems, equipment, and facilities that support the base. Examples include the base telephone switch and cable plant, base communications center, and local area networks (LAN).

Integration —The merger, whenever feasible, of the functional and technical characteristics of existing and planned C-CS to make sure the resulting overall system is consistent with the Air Force C-CS architecture. To be consistent the systems must be interoperable; void of conflicts in purpose, schedule, and technology; and effectively and efficiently supportive of the Air Force.

Interim Installation Records (IIR) —Annotated copies of project drawings compiled by the EI team chief (government or contractor) on completion or installation of a C-CS project at a particular location. They are commonly called "as installed" drawings and annotated to reflect the as-installed conditions that vary from the actual project drawings furnished to the team chief by the C-CS EDSC (when the C-CS EDSC has provided project drawings). When the project is completed, the team chief annotates two sets of drawings, normally leaving one set with the CSIR manager, and forwarding the other set to the C-CS EDSC. The CSIR manager makes sure the C-CS EDSC receives "as installed drawings." IIRs are usually derived from CSIRs.

Local Area Network (LAN) —A telecommunications system, within a specified geographical area, designed to allow a number of independent devices to communicate with each other over a common transmission topology. LANs are usually restricted to relatively small geographical areas (i.e., rooms, buildings, or clusters of buildings) and utilize fairly high data rates. Depending on the implementation, these communications networks can provide internal interchange of voice, data, graphics, video, or other forms of electronic messaging..

Major Command (MAJCOM) Architecture —A framework or formulation of mission-oriented C-CS elements, both functional and technical, that interrelate to support a command's war-fighting capability and other command-unique missions. These elements apply the system design guidance of technical architectures and the information-flow guidance of functional architectures (that is, logistics, command and control, and so forth) to the command mission requirements.

Network —(1) An organization of stations capable of intercommunication but not necessarily on the same channel. (2) Two or more interrelated circuits. (3) A combination of switches, terminals, and circuits that serve a given purpose. (4) A combination of terminals and circuits in which transmission facilities interconnect the user stations directly (that is, there are no switching, control, or processing centers). (5) A combination of circuits and terminals serviced by a single switching or processing center.

Self-Help Project —A C-CS requirement satisfied by the local communications and information unit with the use of available base resources (that is, manpower, material, technical expertise, and so forth), including contractual services. HQ 38 EIW sometimes supports engineering and provides installation material. Installation is self-help. Document infrastructure changes to infrastructure according to this instruction.

Systems Telecommunications Engineering Manager (STEM) —An individual or individuals within HQ 38 EIW responsible for developing, recommending, and coordinating implementation of base-level target architectures and transition strategies consistent with Air Force and MAJCOM C-CS architectures. The STEM-Bs develop C-CS blueprints for the base-level C-CS; the STEM-Cs provide consultant services and develop planning document for an entire MAJCOM.

Target Architecture —An architecture that provides a base-wide digital information transfer system allowing connectivity between all users on the base and connectivity between users and long-haul services such as government and commercial services.

ORGANIZING COMMUNICATIONS AND COMPUTER SYSTEMS FILES

A2.1. Purpose. This attachment details what to place in CSIR files and how to organize them.

A2.2. Organization. Limit CSIRs for each facility to the essential documentation and drawings for effective life-cycle management of C-CS. Organize files as follows:

A2.2.1. Part 1, Administrative Records. These records provide a history and audit trail for each facility. The base CSO keeps these documents for the duration of a facility. Each facility's administrative records will include:

A2.2.1.1. Programming, approval, and authorization documents.

A2.2.1.2. Implementation, completion, and acceptance documents and attachments.

A2.2.1.3. Test certifications and special test results such as horizon profiles; photographs; screen angle charts; line of-site charts; electromagnetic radiation, interference and compatibility; and x-ray and radiation hazards.

A2.2.2. Part 2, Drawing Records. These records depict physical layout of C-CS and provide engineering data. Report CSIR errors to the base CSIR manager. File documents for each facility or system separately and in the following order, front to back:

A2.2.2.1. Drawing Record Index. Lists of drawing records that pertain to a particular base, site, or facility.

A2.2.2.2. Engineering Data Lists. Documents such as manufacturer specifications and drawings, technical orders, and data from other Air Force sources.

A2.2.2.3. Key Sheets. Drawing records that pertain to each facility. File by facility or building number.

A2.2.2.4. Building and Base Layout Drawings. Drawings depicting the physical location of communications and computer systems.

A2.2.2.5. C-CS Drawings. Drawings depicting vital systems engineering data unique to a particular location, site, or facility.

NOTE: If drawings are too large to file with other records, use a cross-reference sheet to show where they are located.

A2.2.3. Part 3, Maintenance Records. Normally filed in a maintenance workcenter so maintenance personnel have current data available for updating. Records may include the following:

A2.2.3.1. Air Force Technical Order (AFTO) Forms: AFTO Form 95, **Significant Historical Data;** AFTO Form 121, **Telephone Equipment Line Record;** AFTO Form 122, **Key Telephone Equipment Installation Record/Worksheet;** AFTO Form 224, **Cable Record (Left Tab 1-20);** AFTO Form 224A, **Cable Record (Right Tab 21-51 and 51-70)**; AFTO Form 224B, **Cable Record (Left Tab 71-00 and 01-20);** AFTO Form 376, **Circuit Layout Record/Trouble Report;** and core automated maintenance system automated history printouts.

A2.2.3.2. HQ 38 EIW's standard drawings (non-CSIR) often provide the only source of schematic and parts breakdown information on interconnecting cables, wiring, equipment-rack construction, and command-supported ancillary equipment items. They may contain engineering data lists that should be identified as manufacturer specifications and drawings or data from other Air Force sources. These include manufacturer's drawings of installed commercial equipment.

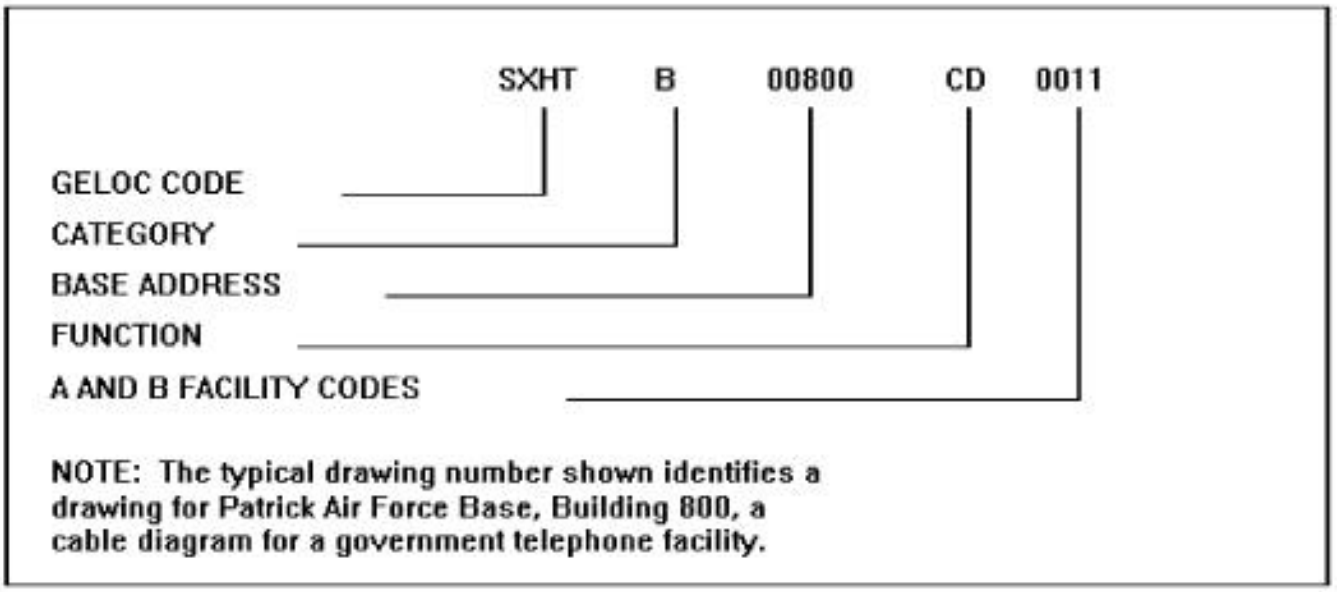
A2.3. Drawing Numbers. Use the drawing number system explained in attachment 3 for CSIR drawings. The C-CS EDSC assigns these numbers.

DRAWING NUMBER SYSTEM

A3.1. Air Force Code Identification Block. This block of each engineering drawing identifies the manufacturer or government organization that produced the drawing. These codes are available in the Defense Supply Agency Handbook, *Federal Supply System Codes of Manufacturers* (H4-1 and 2).

A3.2. Drawing Number System. Figure A3.1 illustrates a typical drawing number. The C-CS EDSC assigns numbers to each drawing according to the following descriptions:

Figure A3.1. Drawing Number Example.



A3.2.1. Geographic Location Indicator (GELOC). The first element of an engineering drawing is the GELOC code. It denotes the precise location of the installation to which the drawing applies. When an engineering drawing pertains to more than one installation, use the GELOC of the organization that prepared the design.

A3.2.2. Category. The second element categorizes the drawing record by its application. There are six categories:

A3.2.2.1. Standard Drawings-S. Drawings that depict C-CS engineering data applicable to more than one system, facility, equipment, or installation method. They are distinct from site-adaptation data.

A3.2.2.2. Planning Drawings-P. Drawings that depict preliminary engineering data to identify operational and programming requirements for engineering a C-CS facility or system. Prepare these drawings to support programming documents and project- support agreements.

A3.2.2.3. Transportable System Drawings-T. Drawings that depict C-CS engineering design data specifically applicable to a transportable or mobile system or facility.

A3.2.2.4. Grid Drawings-G. Drawings that depict the portions of communications and computer facilities and systems located outside buildings.

A3.2.2.5. Building Drawings-B. Drawings that depict the portions of communications facilities and systems physically located within specific buildings.

A3.2.2.6. Mixed Drawings-M. Drawings that depict the portions of communications facilities and systems located both inside and outside buildings.

A3.2.3. Base Address or Serial Number. A five-digit serial number directly related to the category element and derived as follows:

A3.2.3.1. Standard Drawings or Transportable System Drawings (Categories S and T): A five-digit serial number assigned by the C-CS EDSC.

A3.2.3.2. Building Drawings (Category B): The building number assigned by the base or site civil engineer, preceded by sufficient zeros to total five digits. Do not use alpha characters assigned as part of the building number by civil engineers (for example, building 160A would appear as 00160 in the drawing number).

A3.2.3.3. Grid Drawings (Category G): The specific grid location of communications and computer facilities outside buildings. The C-CS EDSC places a grid system on a base layout map, which is the source of the grid number. The first two

digits identify the horizontal row and the last three digits identify the vertical row containing the specific grid. The C-CS EDSC may subdivide the basic grid to show detail in appropriate scale when required. The drawing will identify the location of major communications and computer system facilities using Category B facility codes. Identify pertinent drawings by referencing the facility key sheet.

A3.2.3.4. Mixed Drawings (Category M): The serial number will usually be 00000, but may reflect the number of the primary building depicted on the drawing.

A3.2.3.5. Planning Drawings (Category P): Determine the serial number by content, according to the guidelines for categories S, T, B, M, and G drawings.

A3.2.4. Function. Classifies a drawing according to its predominant type of graphic illustration or information. The C-CS EDSC establishes function identifiers.

A3.2.5. Facility Codes (FAC). These codes (listed in attachment 4) denote the type of facility associated with the communications and computer systems or equipment. Do not use general facility codes (2000, 3000, 6000, and so forth) when a specific code applies. When facility codes do not apply, enter N000. The first facility code entry must be a numeric or alpha G, N, or M. Entries two through four must be numeric. Use M000 FAC when more than one code applies. When a drawing depicts a single C-CS facility, use the appropriate B FAC. When a drawing depicts more than one C-CS facility, use 0000.

FACILITY CODES

The 38 MSS maintains facility codes. Address requests for code changes to the 38 MSS/EGM 4026 Hilltop Road, Suite 111, Tinker AFB OK 73145-2713.

General Categories of Facilities
A Codes

0XXX Base Cable Plant. Includes off-base and on-base, government-owned and commercial, base communications transmission and distribution, and telephone systems that are part of the overall base switchboard and switching facilities and station equipment. The category also includes weather transmission and distribution facilities 0018 and 0028. It excludes transmission and distribution facilities used in direct support of missile countdown and launch control.

1XXX Aerospace Warning/Weapons Control (AWC) Facilities. AWC pertains to the worldwide aerospace defense environment. This category includes air and space defense warning or weapon-control facilities, plus supporting intra and intercommand communications, special meteorological facilities, tactical telephone systems, and closed-circuit television (CCTV) systems. It excludes non-AWC base wire and telephone, intrabase radio, security-type CCTV, navigational aids (NAVAIDS), base general-purpose meteorological systems, and intercommand communications.

2XXX NAVAIDS, Meteorological Facilities, and Flight Facilities. Air Weather Service manages the 227X-series. Air Force Flight Standards Agency manages all other 2000-series. This category includes navigation assistance, air traffic control, and meteorological facilities.

3XXX Common Long-Haul Communications Systems. Includes Defense Information Systems Agency (DISA) operations and related activities. Examples include Defense Communications System but exclude dedicated long-haul command and control communications specifically assigned to MAJCOMs.

4XXX Other Intercommand Systems. Includes intercommand dedicated communications used by tenants on Air Force installations that are not part of common-user communications and computer systems or host-command dedicated communications and computer systems The category excludes networks that are functional components of Air Intelligence Agency (AIA) C-CS 9000-series systems. An example is the Defense Switched Network. The category excludes dedicated long-haul command and control systems or host-command dedicated communications and computer systems.

5XXX Weather Communications. Includes facilities used for transportation and reception of weather information (for example, radios, data terminals, satellite ground stations, facsimile, communications security, CCTV, and so forth). Code weather television briefing facilities as 5062. The category excludes meteorological facilities and weather-satellite tracking stations.

6XXX Base-Level Communications and Computer Systems. Includes all dedicated base or intrasite communications and computer facilities supporting the host mission, including base-level and regional data processing centers. It excludes tactical (deployable) equipment.

7XXX Training Facilities. Includes all communications and computer facilities installed and maintained as complete end items at formal training centers for O and M training. Examples of such centers are at Keesler and Sheppard AFBs. Also programmed in this category are fixed C-CS requirements for Air Reserve Centers and Air Reserve Flying Centers. The category excludes communications and computer facilities at formal training centers supporting base communications.

8XXX Aerospace Communications and Computer Facilities (Operational). Includes ground communications and computer facilities associated with arresting, launching, directing, controlling, and guiding ballistic missiles, earth satellites, space vehicles, and space air vehicles.

9XXX Special Projects. Includes AIA communications and computer facilities, certain research and development facilities, and facilities not fitting the criteria of other "A" codes.

GXXX Air National Guard (ANG) Facilities. Includes ground communications and computer facilities that support the ANG.

Specific Categories of Facilities
B Codes

Code	Description
000	Multi-Facility Drawing
011	Govt Telephone System
012	Govt Fire Reporting Sys
013	Govt Crash Reporting Sys
014	Govt Security System
015	Govt Aux and Satellite Sys
016	Govt Aerospace Tel Sys
017	Govt Electronic Tel Sys
018	Govt Weather Wire Sys
021	Coml Telephone System
025	Coml Aux and Satellite Sys
026	JCS Alert Net/CP Alert Net
062	Govt Closed Circuit TV Fac (CCTV)
078	Integrated Prog Air Base Def
081	Coml Recording Terminal
091	Situation Display Device
100	Early Warning Station
104	Air Defense Control Center
105	Air Defense Air/Grd Comm
106	Special Radar Facilities
111	Ballistic Msl Tracking Fac
162	VHF/UHF Intercept
165	Ground Telemetry
168	Communications Data Mgmt Sys
170	Combat Data Processing Facility
172	Radar Course Directing Group
178	Automated Control Center
201	Control Tower
202	Runway Supervisory Unit
203	Cntrl Twr w/Approach Ctl
204	Air Traffic Ctl A/G Eqpt
207	Special Aircraft Control
209	Flight Following Center
211	Tactical Control
213	Pilot-To-Forecaster Fac
214	Pilot-To-Dispatcher Fac
220	Perm Radar Approach Sys
221	Mobile Radar Approach Sys
226	Instrument Landing Sys Fac
238	VORTAC Facility
242	VHF Omnirange
243	TACAN Facility
245	75 Megaherz Fan Marker
247	LF/MF Lo/Med Pwr Radar Beacon
248	Low Pwr LF Homing Beacon
270	Area Storm Detection Radar
271	Local Storm Detection Radar
273	Meterol Solar Burst Predict
274	Surface Wing Meas Facility
275	Surface Temp and Humidity Meas Fac

277	Cloud Base Height Meas Facility
278	Horizontal Visibility Meas Fac
279	Dual Runway Instrument Meas Fac
280	Weather Satellite Recv
281	Barometry
282	Automatic Meteorological Sta
283	Automated Wx Distribution (AWDS)
367	Automated Comm Term - Small
369	Command Post Record Facility
376	Data Term Station-Govt Owned
380	DSN Switching Facility
381	Govt DSN Four-Wire Term
382	Coml DSN Four-Wire Term
384	Comd and Cont Data Proc Fac
385	Space-Ground Link Subsystem
387	Satellite Cmd/Cont Data Process
408	Supervisor of Flying Facility
409	LF Receiver-Only Terminal
410	Radio TT Weather Intercept
411	Radio Cont Wave Wx Intercept Sta
412	Radio Facsimile Wx Intercept Sta
419	Radio Voice HF G/A Med Power
421	Radio TT HF Multiplex Med Pwr
423	Radio TT HF Duplex Med Pwr
428	Radio Voice HF Low Power
429	Radio Voice Medium Power
444	Radio Voice VHF G/A Med Power
445	Radio Voice VHF G/A Low Power
447	Radio Voice UHF G/A Low Power
448	Radio Voice UHF G/A Hi Power
449	Radio Voice UHF G/A Med Power
451	Microwave Term Fac
452	Microwave Relay Fac
453	Microwave Relay w/Dropout
454	Fiber Optics Eqpt Sys
455	Video Teleconf
460	Voice Freq VHF Radio Link Sys
461	Voice Freq VHF Terminal Sta
462	Voice Freq VHF Relay Sta
465	Voice Freq Submarine Cable Term
470	Long Lines System
475	Land Line Tele Carrier Term
476	Land Line Telegraph Carr Term
477	Wire-Facsimile Facility
478	Voice Freq Submarine Cable Sys
500	CRYPTO Supporting Nets and LANs
502	On-Line Digital Crypto Dux Sync
503	On-Line Digital Crypto H/D Non-Sync
504	Off-Line Literal Cryptologic
505	On-Line Multipurpose Crypto
506	On-Line Digital Crypto Broadcast

508	On-Line High Speed Digital Crypto
509	On-Line Crypto Speech (Ciphony)
511	On-Line TT Crypto Half Dup Synch
512	AUTODIN Crypto Switching Ctr
520	G/A Crypto Speech (Ciphony)
602	SSB Ratio TT HF Hi Pwr Term
603	SSB Voice HF Med Pwr G/A
604	SSB Voice HF Power G/A
640	Satellite Terminal Fac (Multi Channel)
650	Patch and Test Facility
652	Channel and Tech Control Fac
653	Intersite Facility
655	Receiver Station Aux Equip
656	Comm Center Aux Equipment
658	Radio Monitor Facility
659	Crypto Monitor Facility
680	SSB Voice HF Low Power G/A
681	SSB Voice HF Med Power G/A
684	SSB Radio TT HF Hi Power G/A
685	SSB Voice HF Low Power Term
690	Mobile SSB HF Low Power
691	Mobile SSB HF Med Power
693	MARS Mobile Emerg Comm Sta
697	AFRT Television
698	AFRT Radio
699	MARS Facility
808	Remote Comm Center
812	Digital Data Trans Sys Sub A
820	Building/Floor Network Equipment Room
825	Govt LAN - Broadband
826	Govt LAN - Baseband
828	Govt LAN - Fiber Optics
830	Govt LAN - Twisted Pair
831	Coml LAN - Broadband
832	Coml LAN - Baseband
834	Coml LAN - Fiber Optics
836	Coml LAN - Twisted Pair
998	Undefinitized Facility
999	Prepositioned Communications and Computer Equipment

Inactive Facility Codes

The following facilities are removed from use. Contact the C-CS EDSC for further guidance.

Code	**Description**
019	Sol Sta Uninterupt Pwr Sys
022	Coml Fire Reporting Sys
023	Coml Crash Reporting Sys
024	Coml Security Sys
027	Coml Electronic Sys
028	Coml Handwriting Comm Fac

063	Coml Closed Circuit TV (CCTV)
071	Govt Recording Terminal
077	Local Area Security Radar
101	Early Warn/Grd Cont Intrcpt Sta
102	Grd Cntl Intrept Sta
103	Master Grd Cntl Intrept Sta
109	Missle Tracking
110	Ballistic Msl Detection Fac
112	Missile Guidance Facility
115	Bal Missle Impact Predictor
117	Bal Missle Radar Control and Proc
121	Non Fixed BMS Comm Complex
122	Missle Instrum UHF Timing Term
123	Master Data Recovery Timing
124	Slave Data Recovery Timing
125	Rx Time RCVY/Data WF W/MCD
133	Fixed Bal Msl Sys Quality Cntl
141	Auto COC Data Processing
160	Passive Detection
161	HF Intercept
163	Grd Electronic Countermeasures
164	Freq Con, Anal/Freq Mon Intf Con
171	Combat Data Transmission Fac
180	Air Weap Cntl Long Range Rdr Fac
181	Air Weap Cntl Reporting Post
182	Air Weap Cntl Sys and Rptg Post
183	Air Weap Cntl and Rptg Ctr
184	Air Weap Cntl Combat and Ops Ctr
186	Air Weap Cntl G/A Voice Link
188	Air Weap Cntl Nonfix Data Link
189	Air Weap Cntl Nonfix Voice Link
210	En route Air Traffic Ctrl Ctr
212	Transport Control
215	Airways Aeronautical Fac
227	Microwave Landing Sys (MLS)
239	UHF Homing Beacon
244	Radar Beacon
246	High Power LF Homing Beacon
263	Non fixed TACAN
264	Tactical LORAN C/D Facility
272	Atmosphere Locating Fac
290	HF/DF Balloon Tracking
297	Horiz/Vert Wind Meas Facility
356	Coml Auto Comm Term Remote
357	Coml Auto Term Small
358	Coml Auto Comm Term Medium
359	Coml Auto Comm Terminal Large
364	Remote Automated Terminal
365	Automated Comm Term Large
366	Automated Comm Term Medium
368	Emerg Msg Auto Trans USAF OT

371	TT Terminal Radio Teletype
372	TT Weather Terminal Radio TT
373	Facsimile Weather Radio Fac
374	Automatic Data Switching Ctr
375	Manual Data Relay Center
377	Commercial Data Term Station
379	Automatic Error Det and Corr
510	Cryptologic Relay Center
513	Status Authentication Sys Crypto
514	Command Security Sys
515	Low Speed Telemetry Security Sys
516	IFF and Data Link Security
517	Hi Speed Telemetry Security Sys
518	Airborne Digital Crypto
521	G/A Crypto Digital
590	COMSEC Floating Spares
591	AFCD Maint Standards and Spare
601	SSB Radio TT HF Med Pwr Term
605	SSB Voice HF High Pwr Term
614	Radio FAX HF Wea BdcstFe M Pwr
622	Radio TT LF Multiplex Hi Pwr
628	LF High Pwr XMSN 7 Rec Term
651	RF Coax Switch Fac, Xmtr Site
654	Transmitter Station Aux Equip
660	VHF Ionospheric Fwd Scatter
664	Tropospheric Scatter Radio Terminal
665	Tropospheric Scatter Radio Relay
666	Trop Scatter Radio w/Dropout
670	G/A/G Digital Comm Terminal
671	Non Fixed LOS O/H Med Pwr Fac
700	Mobile NAVIDS and Comm Fac
800	STRATCOM Comm Sys Aux Equipment
801	Data Transfer Terminal
805	Data Display Center
806	Data Processing Center
809	Electronic Local data Comm Ctr
810	Simplex Remote Comm Ctr
811	Digital Data Trans Sys Sub A
817	Post Attack Cmd Ctr Xmsm Ctr

QUESTIONS FOR DEVELOPING A CSIR MANAGEMENT CHECKLIST

A5.1. General.

A5.1.1. Are CSIRs developed and maintained for all Air Force-owned fixed communications and computer systems (C-CS), regardless of who maintains or operates the system? (2.1)

A5.1.2. Are CSIRs developed for C-CS that are integral parts of the base infrastructure or connect or interface with the base C-CS infrastructure? (2.1)

A5.1.3. Are CSIRs developed for land mobile radio systems and base stations and deployable equipment that, that complements the base infrastructure? (2.1.1)

A5.1.4. Are CSIRs developed for permanently mounted transportable systems that are considered part of the base infrastructure? (2.1.2)

A5.1.5. Are CSIRs, both classified and those that are FOUO, properly stored and protected? (2.4)

A5.1.6. Do installation activities and workcenters provide updated information (interim installation records) to the CSIR manager and C-CS EDSC? (6)

A5.2. MAJCOM.

A5.2.1. Has the MAJCOM reviewed waiver requests from CSIR requirements? (2.3)

A5.3. HQ 38 EIW.

A5.3.1. Has the C-CS EDSC advised customers on their location and POC? (4.1)

A5.3.2. Has the C-CS EDSC instructed customers on submitting and receiving CSIR updates? (4.1.5)

A5.3.3. Has the C-CS EDSC provided customers with technical specifications for submitting digital drawing updates via electronic media? (4.1.6)

A5.4. Base CSO.

A5.4.1. Has the CSO appointed a CSIR manager? (4.2.1)

A5.4.2. Has the CSO advised the C-CS EDSC who the CSIR manager is? (4.2.2)

A5.4.3. Does the CSO support off-base locations that do not have an assigned C-CS unit? (4.2.5)

A5.4.4. Does the CSO provide technical support and advice to the base contracting office on C-CS contracts to make sure CSIRs are developed or maintained? (5.1)

A5.5. CSIR Manager.

A5.5.1. Does the CSIR manager make sure contracted and military installation activities, or the applicable workcenter, provide accurate, updated, drawing information? (4.3.2)

A5.5.2. Does the CSIR manager provide management guidance and assistance to base and tenant organizations? (4.3.3)

A5.5.3. Does the CSIR manager set up and maintain a master CSIR file for on and off base systems or facilities? (4.3.4)

A5.5.4. Does the CSIR manager work with contractors and the contracting office to establish CSIRs or acceptable contractor maintained records? (4.3.6)

A5.5.5. Does the CSIR manager make sure the C-CS EDSC receives contractor provided CSIRs? (4.3.6)

A5.5.6. Does the CSIR manager make sure all records are reviewed annually? (4.3.7)

A5.5.7. Does the CSIR manager maintain and dispose of CSIRs according to AFI 37-138 and AFMAN 37-139? (4.3.8)

A5.5.8. Does the CSIR manager make sure the C-CS EDSC receive CSIR changes provided by the installation activity and workcenter? (6)

A5.5.9. Does the CSIR manager provide technical support to the base contracting office on C-CS contracts to make sure CSIRs are developed or maintained? (5.1)

A5.5.10. Does the CSIR manager revise existing contractor-prepared drawings that are not in an Air Force format, only when the contractor makes C-CS changes? (5.3)

A5.5.11. Does the CSIR manager make sure all future contractor-provided drawings conform to Air Force formats unless the C-CS directs otherwise? (5.3)

A5.5.12. Does the CSIR manager make sure C-CS maintenance contracts include a provision for the contractor to provide periodic updates, as changes are made, to the CSIR manager. (5.4)

A5.5.13. Does the CSIR manager prepare, update, and transfer contractor maintained records according to AFI 21-404? (5.5)

A5.5.14. Does the CSIR manager update drawings using standard color codes for drawing changes? (6.1.1)

A5.5.15. Does the CSIR manager make sure the appropriate activity provides two copies of the updated drawings? (6.1.2)

A5.5.16. Does the CSIR manager query the C-CS EDSC about the proper use of symbols, drawing levels, and reference files if computer-aided drawing and design (CADD) software is used? (6.1.3)

A5.5.17. Does the CSIR manager get the current drawing record index from the C-CS EDSC and verify its accuracy? (6.1.4)
A5.5.18. Does the CSIR manager notify the C-CS EDSC in writing of major self-help installations that will affect CSIRs or future engineering efforts? (6.1.6)

A5.6. Base Civil Engineer.
A5.6.1. Does the civil engineer include provisions for the development and delivery of "as installed" C-CS records in construction and alteration projects? (4.4.1)
A5.6.2. Does civil engineer design and construction managers send one copy of "as installed" C-CS records to the base CSO and one copy to the C-CS EDSC at the time of facility turnover? (4.4.1.3)